

REMARKS

Following the Restriction Requirement dated 9 April 2002 claims 8-14 remained in prosecution in this case. In this paper Claim 8 has been amended and new Claims 24-29 have been added. Claims 8-14 and 24-29 remain in prosecution

In the Office Action the Examiner rejected the claimed invention under 35 U.S.C. §102(a) as having been anticipated by **Robinson**, Antiviral Res. 39:101-111 (1998) = 130 CA: 60611. The Examiner also rejected the claimed invention under 35 U.S.C. §103(a) as being obvious in view of **Farnet et al.**, Antimicrob Agents Chemother. 42:2245-53 (1998) = 129 CA: 310451. Finally, the Examiner stated he would entertain claims directed to medicaments providing unexpected therapeutic benefits.

Rejections under 35 U.S.C. §102(a) and 35 U.S.C. §103(a)

Applicants respectfully traverse the rejections under 35 U.S.C. §102(a) based on **Robinson**. The contents of that publication were included in the U.S. Provisional Application 60/093,208 (filed 17 July 1998) which formed part of the Paris Convention priority for the PCT from which the present application originated. The Examiner is invited to compare, for example, Figs. 2 and 3 of that publication with Figs. 8 and 9 of the Provisional and Figs. 6 and 7,

respectively, of the PCT or the instant application. The Examiner will discover that the named figures are identical. All other significant figures and results of the **Robinson** reference are similarly incorporated in the Provisional Application. Since the filing date of the Provisional Application preceded the **Robinson** publication and since the PCT Application was filed within one year of the Provisional Application, the **Robinson** reference cannot be a reference under 35 U.S.C. §102(a). Applicants respectfully request that the Examiner withdraw that rejection.

The present inventors are also the inventors of the **McDougal et al.** reference. In fact, that reference was included in the 27 March 1998 Provisional Application. Since the priority document of the present application was filed only about two months (less than one year after) that reference and since the inventors of this application and that reference are common, it does not appear that **McDougal et al.** is a good 35 U.S.C. §103(a) reference against the present application. Applicants respectfully request that the rejections based on **McDougal et al.** be withdrawn.

Applicants also respectfully traverse the rejections based on **Farnet et al.** The Examiner states that the reference teaches the claimed compounds. In fact, a careful examination of the references shows that it is directed towards mostly planar shaped compounds. The compounds disclosed in the present invention

are shown in Figs. 1-4. The only compound common with those pictured in Figs 1-4 is the parent material L-chicoric acid. In other words, the reference does not disclose the novel compounds of the present application. More significantly, **Farnet et al.** makes no statements concerning combination therapy whatsoever. Further, that reference was published later than the filing dates of the two Provisional Applications that form the basis of the existing application. Applicants respectfully request that the rejections based on **Farnet et al.** be withdrawn.

Applicants also respectfully traverse the rejection based on **Deeks et al.** That reference is primarily directed towards protease and inhibitors but also teaches that protease inhibitors are best used in combination with transcription inhibitors. The instant invention is directed towards combinations of integrase inhibitors with transcriptase and/or protease inhibitors. **Deeks et al.** is a reference that demonstrates that some combinations of protease and transcriptase inhibitors are effective together. However, positive interactions of some protease and some transcriptase inhibitors does not demonstrate that all protease and transcriptase inhibitors would show a positive interaction—some so not. Moreover, such a combination does not render obvious combinations with transcriptase and/or protease and integrase inhibitors. Applicants respectfully request the rejections based on **Deeks et al.** be withdrawn.

The present application presents a number of novel integrase inhibitors with markedly superior properties to chicoric acid. Further, the present application is the first showing a synergistic (as opposed to additive or even subtractive) effect between protease, transcriptase and integrase inhibitors. While it might be good practice to see if different medicaments show a synergistic effect, most do not. Therefore, synergistic combinations (as with L-chicoric) or with the entirely new compounds presented here are novel and non-obvious.

Claim 8 has been amended to correct the logic of the claim. The claimed invention is a synergistic combination between integrase inhibitor and either transcriptase inhibitor or protease inhibitor or a combination of integrase and transcriptase inhibitor. As originally written Claim 8 seemed to include combinations lacking integrase inhibitor. This error is corrected by the amendment. Applicants point out that data are presented showing a synergistic action of protease, transcriptase and integrase inhibitor (chicoric acid). Prior to the instant invention such a synergistic action had not been demonstrated. Claim 9 adds a number of entirely novel integrase inhibitors to the combination. As these are previously unknown compounds, the combination must be new and non-obvious. Newly drafted Claims 24-29 add a new family of integrase

compounds to the combination. Again, these are entirely novel integrase inhibitors so that the claims should also be novel and non-obvious.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner still finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (310) 734-5200 to discuss the steps necessary for placing the application in condition for allowance.

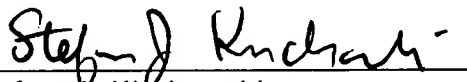
You are hereby authorized to charge any fees due and refund any surplus fees to our Deposit Account No. 50-1796.

Respectfully submitted,

CROSBY, HEAFEY, ROACH & MAY

Date: 27 December 2002

By:



Stefan J. Kirchanski

Registration No. 36,568

Attorney for Applicants

1901 Avenue of the Stars, Suite 700
Los Angeles, CA 90067
Telephone: (310) 734-5200
Facsimile: (310) 734-5299

Red-lined Claim Copy (Revised Rule 121)

- 1 8. (Once Amended) A composition for treating HIV infections
2 comprising a mixture of [a reverse transcriptase] an integrase inhibitor [, and/or] and
3 a protease inhibitor and/or [an integrase inhibitor] a reverse transcriptase inhibitor.